NEVADA GOLDFIELDS INC. BARITE HILL PROJECT

RECLAMATION PLAN UPDATE MINING PERMIT NO. 852 CONSTRUCTION PERMIT #16,225 NEVADA GOLDFIELDS INC. BARITE HILL PROJECT

RECLAMATION PLAN UPDATE MINING PERMIT NO. 852 CONSTRUCTION PERMIT #16,225

### 1.0 BACKGROUND

A reclamation plan update was submitted for Nevada Goldfields' Barite Hill project on January 1992. Based on a final total disturbance of 127 acres, the plan estimated a total reclamation cost of \$261,000. Ultimately a bond amount of \$385,000 was posted, to additionally bond a portion of the final rinsing costs on the permanent pad.

Since the January report, the portion of the total reserve which is sulfide and assumed to be acid generating has been quantified. Also, there has been a new pond installed, and two small oxide pits have been identified for mining in 1994. In addition there have been sites reclaimed since the January report.

Knight Piesold was retained to prepare an independent estimate of the cost to a third party to complete the reclamation of the planned sulfide mining. Their report and estimate is attached.

## 2.0 CHANGES SINCE THE 1992 RECLAMATION PLAN

The 1992 plan assumed the permanent leach pad would contain 1.4 million tonnes of ore, which was the entire proven and probable reserve at Barite Hill in 1992. While the 1.4 million tonnes is still the final figure, the 1992 plan did not quantify or include costs for specific reclamation of the mined sulfide materials. The original plan did however account for recontouring, adding topsoil and revegetating the entire pad area.

The 1992 plan assumed 20 acres of disturbance at the Main pit site. This revision does not change the total disturbed surface area of the pit. It does however, provide for covering exposed sulfides in the pit walls and backfilling the pit to above the water table.

The 1992 plan assumed the Rainsford pit would be backfilled, contoured, capped with topsoil, and revegetated. This revision accounts for additional capping provisions as a result of the placement of the sulfide waste within the pit.

A storage pond encompassing 2.0 acres of disturbance was added at the plant site in 1993.

This revision adds two new pits, the Rainsford extension and Red Hill East. The Rainsford extension is a shallow oxide pit adjacent to the Rainsford pit, total added disturbance for this site is 3.9 acres. The Red Hill East pit is an extension of the ore contained in the Main pit. This small, shallow pit

and access road will add 5.0 acres of disturbance.

Since the 1992 plan, three areas have either been partially or entirely reclaimed. The three areas total approximately 15 acres. They consist of the solid waste site 7 acres, the C area power line corridor 4 acres, and 4 acres along the front face of the A dam. Once sustained vegetation and erosion control is demonstrated, Nevada Goldfields will either petition for release of these sites or will seek to exchange them for new disturbance.

## 3.0 OPERATION PLAN

#### MAIN PIT

Mining in the Main pit is currently on the 415 bench. The final mine plan calls for mining to terminate at the 340 bench in September 1994. Ore will be crushed and stacked onto the permanent pad Phases 3 and 4. Phases 3 and 4 will be physically separated from the previously stacked ore. Oxide waste will be placed on the A dump, sulfide waste will either be backfilled into the Rainsford pit or Main pit. Some mixed oxide/sulfide waste will be encapsulated within the A dump. It is still not clear what the water table will be in the Main pit. Water encountered in the pit will be pumped to the A storage pond for dust control or discharge through outfall 001.

The schedule calls for sulfide waste disposal at the following sites:

Rainsford Pit: 500,000 tonnes Main Pit: 425,000 tonnes A Dump: 190,000 tonnes

The mine plan calls for 400,000 tonnes of sulfide ore to be ultimately crushed and stacked. The Knight Piesold study assumed 500,000 tonnes of sulfide ore.

# RAINSFORD PIT EXPANSION

There remains approximately 35,000 tonnes of oxide ore on the south west extension of the Rainsford pit, down to a depth of 30 feet. The strip ratio will be less than 1 to 1. This oxide ore will be placed on the permanent pad. The oxide waste will either be placed on the A dump or will be used as part of the Rainsford cap.

The disturbed area encompasses 3.90 acres. This includes a 50 foot buffer around the pit site for construction of brush

berms. Once mining is completed (within six weeks of starting), the pit will be backfilled with available oxide waste and will be sloped to allow for free drainage. Soil stabilization and revegetation will be carried out as outlined in the original reclamation plan.

#### RED HILL EAST

The Red Hill East area contains a small extension of the Main pit ore zone. Approximately 35,000 tonnes of oxide ore are contained within a near surface (less than 50 foot deep) zone. The strip ratio is approximately 1 to 1. The oxide ore will be placed on the permanent pad. The oxide waste will be backfilled into the Main pit.

The disturbed area encompasses 5 acres. This includes a 50 foot buffer around the pit site for construction of a brush berm, and the haul road from the Red Hill pit to the Main pit. Mining will be completed within six weeks of starting. The final pit will be sloped to make it free draining. There will be no waste dumps at the site to reclaim. The fill required to build the short (approximately 400 foot) haul road will be removed from the drainage area. The drainage culvert will also be removed. The haul road and pit area will then be recontoured, scarified and planted. Soil stabilization and revegetation will be carried out as outlined in the original reclamation plan.

# 4.0 RECLAMATION PLAN

## Sulfide Mining

Reclamation upon completion of mining in the Main pit will take place in three areas: 1) the Rainsford pit, 2) leach pad reclamation, and 3) Main pit backfilling and capping of the stored sulfide waste. The cost and methodology of reclaiming these areas is detailed in the attached Knight Piesold report.

## Storage Pond

The storage pond will be used as part of the water treatment system to store, as needed, clean treated water. Prior to this the calcium scale currently in the pond will be rinsed and moved into the main pond circuit. As such reclamation of the pond will consist only of removing the plastic and recontouring the site.

## Rainsford Pit Extension

Reclamation of the Rainsford pit extension will consist of stabilizing the pit walls and adjacent disturbed area, leaving any final depression free draining, adding back topsoil, and revegetating. Available oxide waste from the Main pit will be backfilled into the depression. The mine plan calls for this mining and reclamation to be completed prior to the completion of the Main pit.

## Red Hill East Pit

Reclamation at Red Hill East will consist of stabilizing the pit walls and adjacent disturbed area, leaving the depression free draining, removing the haul road from the drainage, adding topsoil, and revegetating. There will be no waste dump at the site. Based on the mine plan, reclamation work at this site will be completed before mining of the Main pit is completed.

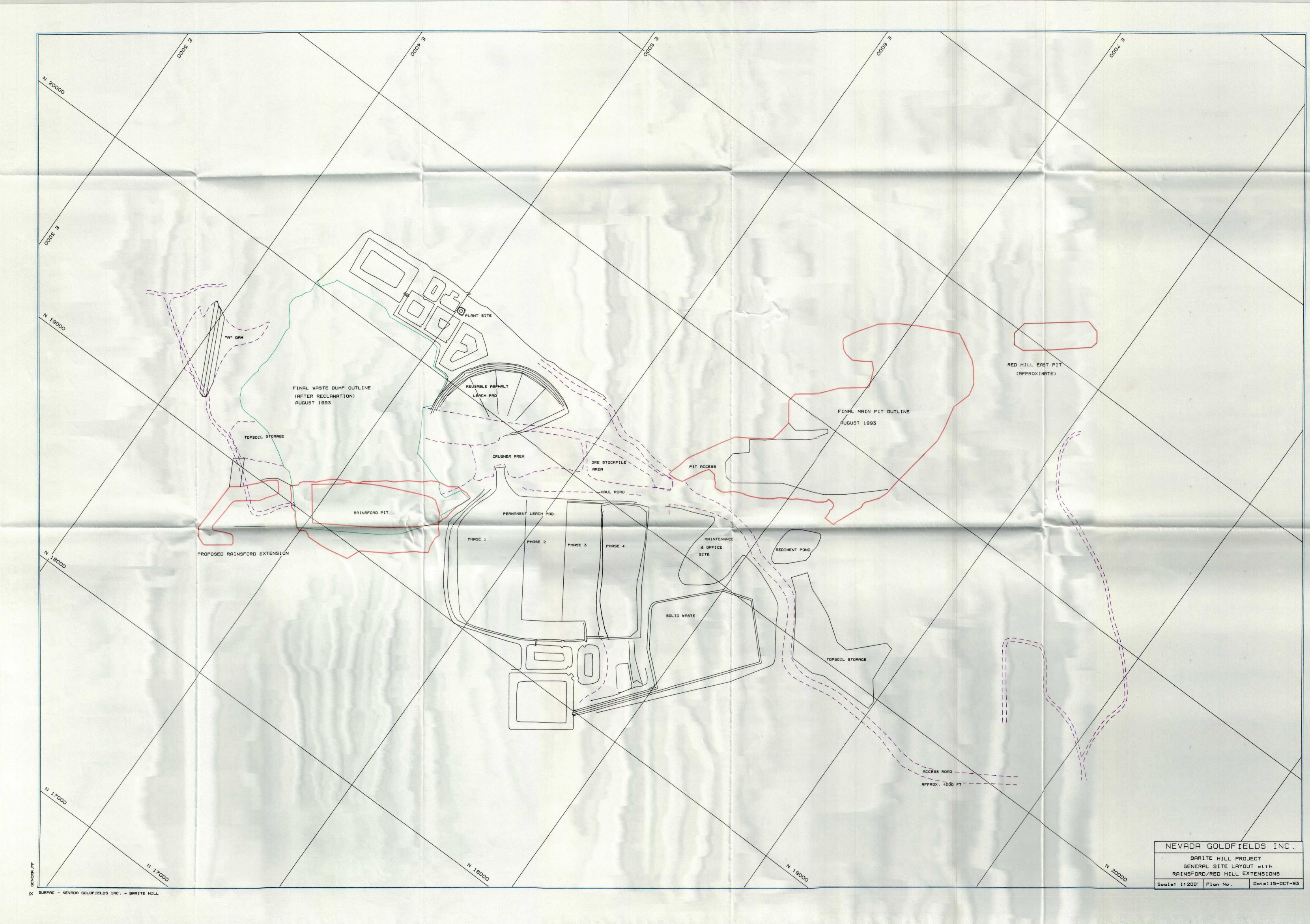
#### 5.0 COST ESTIMATE

In addition to the \$261,000 reclamation estimate outlined in the January 1992 report, the following additional reclamation costs have been developed based on the updated mine plan.

Sulfide Mining Reclamation Storage Pond	\$660,000 3,100
Red Hill East Pit	16,500
Total	\$687,400

The two sites which have been fully reclaimed as outlined in the January 1992 report are the Solid Waste dump and the C area power line corridor. The reclamation cost estimates for these two sites are \$17,053 and \$3,340 respectively. While these sites have not been through two growing seasons they are well stabilized, it is therefore requested that a portion of this reclamation cost be credited against the total reclamation estimate.

GENERAL SITE LAYOUT WITH RAINSFORD AND RED HILL PIT LOCATIONS



Unable to locate during 2019 file review

MAN PIT SHOWING WASTE BACKFILL SITES

Unable to locate during 2019 File review

PERMANENT PAD
CELL 3 & 4 STACKING
CONFIGURATION